# Bachelor of Science

Molecular and Cell Biology
Zoology and Ecology

**2027 ENTRY**

## Useful study planning / enrolment resources

| | | | |
|---|---|---|---|
| Course and Subject Handbook | Academic Calendars | Class Registration | Enrolment Resources |

**Attention International Student visa holders:** To remain compliant with enrolment requirements as a Student visa holder, you are required to enrol in at least one On-Campus, Multi-Modal or WIL subject offering in each compulsory study period and you cannot enrol in more than one third (33%) of your total course load through online or distance learning. To complete your course within your CoE duration, maintain sufficient subject enrolment. If only Online subject offerings are available in a compulsory study period, contact enrolments@jcu.edu.au urgently for enrolment advice.

Student Resources: If you require advice about your study plan, choosing electives, or which subjects to enrol in, please contact your major advisor or degree coordinator (CSE Course and Major Advisors). For information on available elective subject options please also refer to the Study Area guide (JCU STUDY AREA GUIDE — College of Science & Engineering).

**INTENSIVE:** Subjects labelled with *Intensive involve mandatory on-campus or fieldwork attendance with extended hours over a dedicated face-to-face period. Please check the face-to-face dates for the subject in the subject handbook and do not enrol in subjects with overlapping face-to-face dates. For more information, see the CSE Student Guide to Succeeding in Trimester 2 Intensives on the CSE Student Resources webpage.

### How to read this planner

**PREREQ** Prerequisite information **ONLINE** Online offering **PLACEMENT** Placement requirement **INTENSIVE** Intensive on-campus requirement

## 2027

| TRIMESTER 1 | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|
| SC1101:03 Science, Technology and Truth | MA1020:03 Preparatory Mathematics (or any Level 1, 2, 3 or 5 subject if already satisfied via previous study) | SC1102:03 Modelling Natural Systems<br>**PREREQ:** MA1020 or MA0020 or Senior Mathematics or equivalent<br>**OR**<br>SC1109:03 Modelling Natural Systems-Advanced<br>**PREREQ:** MA1000 or MA1009<br>*SC1109 is compulsory in the Advanced BSc Program and should be taken instead of SC1102 if you are considering that pathway. |
| **Zoology and Ecology Major**<br>BS1007:03 Introduction to Biodiversity | CH1020:03 Preparatory Chemistry (or any Level 1, 2, 3 or 5 subject if already satisfied via previous study) | **Zoology and Ecology Major**<br>BS1001:03 Introduction to Biological Processes |
| **Molecular and Cell Biology Major**<br>BM1110:03 Molecules to Microbes | **Molecular and Cell Biology Major**<br>BM1201:03 Energy Metabolism: Powering Life<br>**PREREQ:** Senior Chemistry or equivalent, allow concurrent enrolment in CH1020 | |

## 2028

| TRIMESTER 1 | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|
| SC2202:03 Quantitative Methods in Science<br>**PREREQ:** SC1102 OR SC1109 or admission to Bachelor of Business and Environmental Science or admission to 116209, 116309 or 116409<br>**OR**<br>SC2209:03 Quantitative Methods in Science-Advanced<br>**PREREQ:** MA1003 and ((SC1109 plus 6 credit points of other Level 1 subjects) or admission in 116409) | Select 3 credit points of subjects from List 2 **(Skills Subjects)**<br>*Recommended - EV2502:03 Introduction to Geographic Information<br>**PREREQ:** 9 credit points of subjects at Level 1 Systems<br>**INTENSIVE:** 2 week face-to-face fieldwork component | **Zoology and Ecology Major**<br>BS2460:03 Fundamentals of Ecology<br>**PREREQ:** 6 credit points of Level 1 or 2 BZ/BS or EV subjects |
| **Zoology and Ecology Major**<br>BS2470:03 Evolution<br>**PREREQ:** BZ1001 or BS1001 or BZ1005 | **Zoology and Ecology Major**<br>BZ2490:03 Toolkit for the Field Biologist<br>**PREREQ:** SC2202 or SC2209 or SC5202 or SC5502<br>**INTENSIVE:** 2 week face-to-face fieldwork component | **Molecular and Cell Biology Major**<br>BM2330:03 Cell Biology: Signaling & Regulation<br>**PREREQ:** Minimum 18 credit points of Level 1 subjects including BM1110 or BM1000 or BS1001 |
| | **Molecular and Cell Biology Major**<br>BM2230:03 DNA to Proteins<br>**PREREQ:** Minimum 18 credit points of Level 1 subjects including BM1110 or BM1300 or BM1000 or BS1001 | **Molecular and Cell Biology Major**<br>BM2310:03 Drugs: Trigging System Responses<br>**PREREQ:** BM1201 |

## 2029

| TRIMESTER 1 | TRIMESTER 2 | TRIMESTER 3 |
|---|---|---|
| **Zoology and Ecology Major**<br>BZ3220:03 Population and Community Ecology<br>**PREREQ:** (SC2202 or SC5202 or SC2209 or BS2001 or BZ2001 or AG2001) and (BS2460 or MB2060 or 3 credit points of Level 2 BZ) | **Zoology and Ecology Major**<br>BZ3061:03 Behavioral Ecology<br>(Offered TR1)<br>**PREREQ:** 6 credit points of Level 2 Science<br>**OR**<br>BZ3745:03 Tropical Entomology<br>**PREREQ:** (SC2202 or SC5202 or SC2209 or BZ2001 or BS2001 or AG2001) and (BZ1006 or BS1007 or BZ1007 or ZL1001 or BZ1004 or AG1004)<br>**INTENSIVE:** 2 week face-to-face fieldwork component | SC3008:03 Professional Placement<br>(Offered TR1, TR2, TR3)<br>**PREREQ:** Students must have successfully completed 12 second year credit points<br>**PLACEMENT** 100 hours<br>**OR**<br>SC3003:03 Science Research Internship<br>(Offered TR1, TR2, TR3)<br>**PREREQ:** 15 credit points of Science Level 2 subjects plus a GPA of 5.5 or above.<br>*Students must source a supervisor for their internship before enrolment<br>**PLACEMENT** 100 hours |
| **Molecular and Cell Biology Major**<br>BM3130:03 Genes, Genomes and Development<br>**PREREQ:** BM2230 | **Zoology and Ecology Major**<br>BZ3230:03 Ecological Research Methods<br>**PREREQ:** (SC2202 or SC2209 or BS2001 or BZ2001) and (BS2460 or BZ2490 or BZ2440 or BZ2880)<br>**INTENSIVE:** 2 week face-to-face fieldwork component<br>**OR**<br>BZ3001:03 Field Studies in the Equatorial Tropics: Borneo<br>**PREREQ:** (SC2202 or SC2209 or BS2001 or BZ2001) and (BS2460 or BZ2490 or BZ2440O or BZ2280)<br>**INTENSIVE:** 2 week face-to-face fieldwork component<br>*Prior Approval | Select 3 credit points of any Level 1, 2, 3 or 5 subjects |
| **Molecular and Cell Biology Major**<br>BM3130:03 Genes, Genomes and Development<br>**PREREQ:** BM2230 | **Molecular and Cell Biology Major**<br>BM3330:03 Synthetic Biology and Bioengineering<br>**PREREQ:** BM1201 or BC2013 and BM2230 or BC2023 | |

# Course Handbook

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|---|---|
| Bachelor of Science | Molecular and Cell Biology<br>Zoology and Ecology |

*Tip: Use this planner with the Course and Subject Handbook each enrolment period to confirm availability, prerequisites and campus/mode requirements.*

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| **Award Title** | Bachelor of Science |
| **Abbreviation** | BSc |
| **Credit Points** | 72 |
| **AQF Level** | Level 7 - Bachelor Degree |
| **Location** | Townsville Bebegu Yumba, Cairns Nguma-bada |
| **Division** | Academy |
| **College** | College of Science and Engineering |
| **Expected Time to Complete** | 3 Years |
| **Maximum Time to Complete** | 9 Years |
| **Maximum Leave of Absence** | 3 Years |
| **CRICOS Code** | 076290A, OS |